

1. (Twice Amended) A substantially pure nucleic acid encoding a lineage-37 (LIN-37) polypeptide that is free of the genes which, in the naturally-occurring genome of the organism, flank the gene, said polypeptide having about 50% or greater amino acid sequence identity to SEQ ID NO: 1, wherein said polypeptide has the ability to alter cell proliferation.

Kindly amend claim 7 as follows in re-written format:

7. (Twice Amended) A substantially pure DNA encoding the amino acid sequence of SEQ ID NO: 1 that is free of the genes which, in the naturally-occurring genome of the organism, flank the gene, wherein said DNA encodes a polypeptide having the ability to alter cell proliferation.

Kindly amend claim 10 as follows in re-written format:

10. (Twice amended) A substantially pure synMuv nucleic acid comprising nucleic acid having about 50% or greater nucleotide sequence identity to the DNA sequence of SEQ ID NO: 2, wherein said nucleic acid encodes a polypeptide having the ability to alter cell proliferation.

Kindly amend claim 16 as follows in re-written format:

16. (Twice Amended) A cell which contains a substantially pure nucleic acid encoding a lineage-37 (LIN-37) polypeptide that is free of the genes which, in the naturally-occurring genome of the organism, flank the gene, said polypeptide having about 50% or greater amino acid sequence identity to SEQ ID NO: 1, wherein said polypeptide has the ability to alter cell proliferation.

Kindly amend claim 18 as follows in re-written format:

18. (Twice Amended) A transgenic cell which contains a substantially pure nucleic acid encoding a lineage-37 (LIN-37) polypeptide having about 50% or greater amino acid sequence

identity to SEQ ID NO: 1, wherein said polypeptide has the ability to alter cell proliferation.

Kindly amend claim 25 as follows in re-written "clean" format:

25. (Twice Amended) A substantially pure *lineage-37 (lin-37)* nucleic acid having about 50% or greater nucleotide sequence identity to SEQ ID NO: 2 isolated according to the method comprising:

- (a) providing a cell sample;
- (b) introducing by transformation into said cell sample a candidate *lin-37* nucleic acid;
- (c) expressing said candidate *lin-37* nucleic acid within said cell sample; and
- (d) determining whether said cell sample exhibits an altered cell proliferation response, whereby an altered level of cell proliferation identifies a *lin-37* nucleic acid.

REMARKS

Summary of the Invention

The invention features nucleic acids encoding the LIN-37 polypeptide, and vectors and cells containing the same. The activity of *lin-37* is important in the control of cell proliferation and may be used as a therapeutic compound to modulate this pathway.

Support for the Amendments

Support for the amendment of claims 1, 7, 16, 18, and 25 is found in the specification at page 12, lines 8-10, and at page 1, lines 15-16. The amendment of claim 10 finds support in the specification at page 6, lines 8-14 and page 9, lines 10-21. No new matter is introduced by these amendments.